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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
 ) PP Docket No. 92-234  
Inquiry into Encryption Technology )  
for Satellite Cable Programming )

To: The Commission

**REPLY COMMENTS OF HOME BOX OFFICE,  
A DIVISION OF TIME WARNER ENTERTAINMENT COMPANY, L.P.**

Home Box Office ("HBO"), a Division of Time Warner Entertainment Company, L.P., by its attorneys and pursuant to Section 1.415 of the Commission's Rules, 47 C.F.R. § 1.415, hereby submits its Reply in response to the Comments filed in the above-captioned proceeding.

The record unequivocally demonstrates that the Commission's goals can best be achieved by allowing the home satellite dish ("HSD") industry to continue to develop in an open marketplace without regulation. The majority of commenters share the Commission's optimism about the ability of the private sector to navigate the transitions that can be anticipated in the HSD market.

HBO concurs with those commenters who recognize that the C-Band analog equipment marketplace will be increasingly characterized by intersystem competition which undoubtedly

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will bring down the cost of equipment. HBO submits that the Commission should continue to permit programmers, who are the initial purchasers of encryption technology and who have the most at stake in creating a secure distribution system for their services, to exercise their independent judgment regarding the security of alternative analog encryption systems. The record in this proceeding provides no support for the proposition that any competitive encryption system provider should be enabled by regulatory action to achieve commercial goals which could not have been realized based on the merits of its product offerings.

**I. THE COMMISSION'S GOALS FOR THE HSD INDUSTRY  
CAN BEST BE ACHIEVED THROUGH COMPETITION**

The record confirms that competitive forces will work to shape the HSD industry to the advantage of consumers without the need for government intervention. In fact, the majority of commenters strongly urge the Commission to resist any pressures to regulate in this area. For instance, News Datacom believes that "this is a rapidly evolving marketplace ill-suited to the pace and rigidity of government processes,"<sup>1</sup> and states that "increased choice, improved security, enhanced features and lower consumer prices are realistically achievable without government intervention."<sup>2</sup>

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<sup>1</sup> Comments of News Datacom at 14.

<sup>2</sup> Id. at 1 (emphasis in original).

The Satellite Broadcasting and Communications Association of America ("SBCA") concurs, pointing out that "advances in encryption security were accomplished by private entrepreneurship and not by government-mandated standards. Market forces drove the encryption upgrade, lest the vast potential of a satellite viewing base for the future be lost."<sup>3</sup>

DirecTv, Inc. ("DirecTv"), a subsidiary of Hughes Communications Galaxy, Inc. ("Hughes"), supports the "Commission's current policy not to mandate encryption standards for the satellite video industry," and feels it especially appropriate "not to require licensees to adopt particular encryption standards or decoder technologies."<sup>4</sup>

Several commenters affirm HBO's belief that the Commission must consider the state of the marketplace in light of the inevitable and dramatic changes which will bring about intersystem competition -- i.e., competition between C-Band satellite analog delivery systems and the new satellite programming delivery alternatives. Thus, the competitive forces that will shape the HSD equipment environment will not come from the C-Band analog equipment universe alone. As HBO stated in its opening Comments, alternative technologies and delivery systems, such as mid-power and high-power DBS, which plan to offer similar programming but different features and lower priced reception

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<sup>3</sup> Comments of SBCA at 5.

<sup>4</sup> Comments of DirecTv at 4 (emphasis in original).

equipment, will have a substantial competitive impact on the C-Band equipment universe.<sup>5</sup>

DirectTv, which will provide the first high-power DBS service in the United States, concurs, pointing out that because DirectTv will offer a full range of programming comparable to the panoply of services currently available via C-Band satellites, it believes "that its entry into the video programming distribution market will have a pro-competitive effect on the industry generally. . . ."<sup>6</sup> Significantly, DirectTv maintains that "consumers will soon have a choice between full-service multi-channel video programming providers, and the cost of DirectTv services will be only a fraction of the cost of C-Band HSD services."<sup>7</sup>

In addition to Hughes (DirectTv), several DBS permittees have fulfilled the Commission's due diligence requirement, and thus have received DBS orbit and channel assignments, including EchoStar Satellite Corporation, United States Satellite Broadcasting Company, Inc. ("USSB"), Advanced Communications Corporation and Tempo Satellite, Inc. Thus, the impact of multiple DBS delivery systems on the C-Band HSD marketplace is imminent. Hughes and USSB already have announced plans to offer DBS reception equipment for less than \$700, a very competitive price when compared to the

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<sup>5</sup> Comments of HBO at 4.

<sup>6</sup> Comments of DirectTv at 3.

<sup>7</sup> Comments of DirectTv at 4 n.1

approximately \$2,500 current average cost for C-Band systems. Therefore, if the C-Band HSD industry is to meet the competition, HBO believes that there will be a dramatic decrease in C-Band equipment prices driven naturally by increased competitive pressures.

## **II. PROGRAMMERS MUST HAVE THE FLEXIBILITY TO SELECT ENCRYPTION SYSTEMS TO MEET THEIR NEEDS**

In its Comments, HBO expressed its views as a programmer regarding three important elements in evaluating competing satellite encryption systems. Of foremost importance is system security, followed by the amount of satellite transmission capacity required to support alternative authorization data streams and the extent to which competing systems offer compatible features and capabilities to consumers.

It is important for each programmer to make its own assessment of these (and any other) important qualities, since programmers generally have the greatest risks from compromised security, squandered transponder capacity and consumer confusion and dissatisfaction. Some programmers may value different aspects of encryption systems differently, but in the final analysis, the programmers should be free to make their own choices, unencumbered by governmental

requirements that might dictate certain security system characteristics that a programmer would find undesirable.<sup>8</sup>

In HBO's case, it has become convinced that system security, by far, is the most important aspect of any encryption system to be used by subscription programmers. Having lost millions of dollars in revenue through a compromised system, HBO simply will not willingly deploy an encryption system unless it is absolutely convinced that the security is as sound as it possibly can be.<sup>9</sup>

Because of its experience with piracy of the VideoCipher II ("VC II") technology, HBO made the decision several years ago to break cleanly with the VC II system and move

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<sup>8</sup> The C-band analog HSD system in the United States is somewhat unique in that numerous program distributors have independently and individually selected a common technology in order to achieve compatible access to C-Band HSD subscribers. Most encryption systems are "closed," not shared, whereby a single distributor, with multiple channels of programming, chooses the encryption system to be used by all of the services on the closed system. For example, DirecTv has chosen the Thomson system for all the channels DirecTv controls on its DBS satellite. PRIMESTAR Partners selected the B-MAC system of Scientific-Atlanta, Inc. and operates its own authorization center for its mid-power Ku-Band service, and BSkyB has selected the News Datacom technology owned by its affiliated company for its services in the United Kingdom.

<sup>9</sup> Programmers are not the only ones that suffer from compromised security, but the manufacturers, distributors and dealers of compromised hardware are not likely to suffer as much (if at all), since experience has shown that there is a ready market for equipment that can be used to steal programming. In the long run, consumers will suffer most, because the prices they pay for programming and equipment will reflect any costs incurred due to security breaches and because programmers eventually will cease to offer their products in an environment where theft is rampant.

completely to VC II Plus and VideoCipher Renewal Security ("VCRS"). HBO's decision was based on its firm belief that VC II had been hopelessly compromised and that drastic measures were necessary to resecure HBO's programming.

HBO made the decision to abandon VC II on its own, and it negotiated with GI Corporation ("GIC") first to upgrade the legitimate consumer subscribers and then eliminate the VC II consumer authorization data stream transmitted in the horizontal blanking interval ("HBI"), and subsequently, to upgrade VC II commercial descramblers and discontinue the VC II commercial data stream in the HBI, which will be accomplished in 1993. It has been HBO's view for some time that only when VC II or VC II-like data streams are completely removed from the HBI will the current VideoCipher security problems be resolved.<sup>10</sup>

HBO urges the Commission to continue to allow the encryption marketplace to work unencumbered by unnecessary regulation. Programmers, who have a direct stake in the

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<sup>10</sup> Titan Satellite Systems Corporation ("Titan"), in Comments, claims that GIC is upgrading to VCRS with the ultimate intent "to eliminate the ability to transmit LSCS [Linkabit Smart Card System] authorization messages in the horizontal blanking interval" and that "elimination of the ability to insert new source messages into the HBI of programmer's signal transmissions would only be done to block Titan Satellite System Corporation's market entry." Comments of Titan at 33. HBO cannot speak to GIC's motives. HBO can assure the Commission unequivocally, however, that HBO made an independent decision, long before Titan even announced a competitive technology, to switch completely to VCRS and to abandon any VC II-like authorization data streams in the HBI, in light of HBO's assessment that VC II/HBI type systems were insecure.

utilization of encryption technology because they must create a secure distribution system for their services, should be free to negotiate in a business environment the issues concerning the credibility and viability of companies wishing to provide encryption equipment, the recourse available to programmers in the event of a security break, and the soundness of any company to stand behind a competitive system. Should the Commission attempt to substitute its judgment for that of programmers in this regard, and lock the industry into an unreliable or insecure technology, it is the consumer who will ultimately suffer the consequences.

#### CONCLUSION

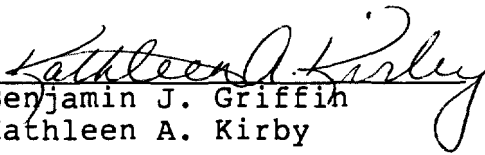
The record in this proceeding clearly demonstrates that the HSD industry is providing and will continue to provide consumers with an increasing range of choices in terms of both reasonably priced programming and reception equipment. Like the majority of commenters, HBO favors competition in the HSD industry, but believes that the Commission's goals for the marketplace can best be achieved without government intervention. The record amply demonstrates that competition exists and will continue to increase in the marketplace, as competitive C-band encryption technologies create intrasystem competition and new delivery systems create intersystem competition. Given these facts, HBO believes that the public interest would best be served if the Commission resists any



suggestion that it regulate the HSD industry, and instead allow those with the most at stake to make the business decisions that will successfully take the industry forward.

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

I, Kathleen A. Kirby, do hereby certify that a copy of the foregoing **Reply Comments of Home Box Office, A Division of Time Warner Entertainment Company, L.P.**, has been sent this 26th day of January, via first class mail, postage prepaid, to the following:

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